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4

Val Tyr Thr Asp Lys Arg His Tyr Cys Ala Leu Gly Ser Val Lys Ser
20 25 30

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Asn Ile Gly His Leu Gly Val Gly Ala Gly Ile Ala Gly Val Thr Lys
35 40 45 .

Val Leu Leu Ser Leu Gln His Arg Met Leu Pro Pro Thr Ile His Cys
10 50 55 60

Glu Asp Val Asn Pro Gln Ile Ala Leu Glu Gly Ser Pro Phe Tyr Ile
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acatcaccat tacaaaatac tatttaccc cagaacggtt tgtttattgt tccactatct 420
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ttagcatata ccctccaggt cagtagggaa gcgatgacaa aacgagttgc ctttgtagtg 600
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Ile Leu Leu Asp Leu Ala Tyr Thr Leu Gln Val Ser Arg Glu Ala Met 180 185 190

Thr Lys Arg Val Ala Phe Val Val Lys Thr Thr Ile Glu Leu Met Glu
5 195 200 205

Lys Leu Asn Ala Phe Ile Glu Lys Gln Asn Thr Ile Lys Ala Ser Asn 210 215 220

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40Glu Gly Thr Gln Arg Lys Gln Phe Cys Gly Ile Gly Ser Val Lys Ser

25 30

Asn Ile Gly His Leu Asp Val Ala Ala Gly Val Val Gly Leu Ile Lys
35 40 45

5

Thr Ala Leu Ser Leu Gln His Arg Leu Leu Pro Pro Thr Ile Asn Tyr
50 55 60

Glu Ala Pro Asn Arg Glu Ile Asn Phe Glu Gln Ser Pro Phe His Val

10 65 70 75 80

Ile Asp Glu Leu Thr Glu Trp Arg Gly Gln Gly Gly Pro Leu Arg Ala 85 90 95

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Val Asp Asn Trp Arg Lys Asn Thr Cys Ala Leu Gly Ser Val Lys Ser
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Asn Ile Gly His Thr Ser Ala Ala Ser Gly Val Ala Gly Ile His Lys

5 35 40 45

Val Leu Leu Ser Leu Lys His Arg Gln Leu Val Ala Ser Leu His Phe 50 55 60

10Asn Ser Ala Asn His His Phe Asp Phe Gln Gln Ser Pro Phe Tyr Val 65 70 75 80

Asn Thr Gln Leu Arg Pro Trp Asp Gln Ala Glu Gly Leu Glu Glu Ser 85 90 95

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Arg Arg Ala Ala Val Ser Ser Phe Gly Val Ser
100 105

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Asn Ile Ser His Leu Glu Ala Ala Gly Gly Ile Ser Gly Leu Ile Lys 40 45 35

Ala Val Leu Ala Met Gln His Gly Val Ile Pro Gln Gln Leu His Cys 10 50 55 60

Lys Glu Pro Ser Pro His Ile Pro Trp Lys Arg Leu Pro Leu Asp Leu 70 65 75 80

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Val Thr Ala Ser Asp

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Asp Ser Gln Ser Thr Thr Tyr Leu Gly Ala Val Lys Ser Asn Ile Gly
5 20 25 30

His Ala Asn Ala Gly Ala Gly Ile Ala Gly Phe Ile Lys Thr Val Leu

35 40 45

10Ser Leu Tyr His Gly Lys Ile Ala Pro Asn Ala Gly Asn Thr Glu Pro 50 55 60

Asn Ala Ala Leu Asn Leu Asp Ala Phe His Phe Ala Leu Pro Lys Thr
65 70 75 80

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Leu Leu Thr Trp Pro Glu Cys Asp Val Arg Arg Ala Ala Ile Ser Ser 85 90 95

Leu Gly Phe Gly

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gttgcagctc tgattaaggc agttttggtt cttcaacatg gcgtggctcc ggccaatttg 180
cactgtcaca aattgaatcc gcttctggat atcgacggct tcaatgttgt gttcccgcag 240
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Gly His Leu Glu Ala Thr Ala Gly Val Ala Ala Leu Ile Lys Ala Val
35 40 45

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Leu Val Leu Gln His Gly Val Ala Pro Ala Asn Leu His Cys His Lys
50 55 60

Leu Asn Pro Leu Leu Asp Ile Asp Gly Phe Asn Val Val Phe Pro Gln
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Ser Glu Thr Pro Leu His Ser Ser Leu Gln Leu Leu Gly Gly Tyr Gln 85 90 95

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Pro Tyr Thr Glu Lys Lys Asn Tyr Cys Ala Ser Gly Ser Val Lys Ser
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10Asn Ile Gly His Leu Thr Ala Ala Gly Val Ser Gly Val Val Lys Val
35 40 45

Leu Leu Ala Leu Lys His Lys Gln Leu Pro Pro Ser Cys His Leu Val
50 55 60

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Lys Ile Asn Glu His Ile Asn Leu Glu Asp Ser Pro Phe Tyr Ile Asn 65 70 75 80

Thr Ala Leu Lys Lys Trp Glu Val Ser Glu Gly Glu Ala Arg Arg Ala
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Ala Val Ser Ser Phe Gly Ser

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35 40 45

15Met Ala Leu Lys Ala Arg Gln Ile Pro Pro Ser Leu His Phe Glu Thr
50 55 60

Pro Asn Pro Gln Ile Asp Phe Ala Asp Ser Pro Phe Tyr Val Asn Thr
65 70 75 80

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Ser Ser Phe Gly Ile Gly
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agcttgaatt ttgaaacacc aaatccagac ctggatctgg agaatagtcc gttcttcatc 240
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Asn Ile Gly His Thr Asp Ser Ala Ala Gly Ile Ala Gly Leu Leu Lys 40 45 35

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Ile Val Met Ala Met Lys His Arg Gln Leu Pro Pro Ser Leu Asn Phe 50 55 60

Glu Thr Pro Asn Pro Asp Leu Asp Leu Glu Asn Ser Pro Phe Phe Ile 20 65 70 75 80

Gln Thr Lys Leu Lys Asp Trp Glu Ser Val Gly Pro Arg Arg Ala Ala 85 90

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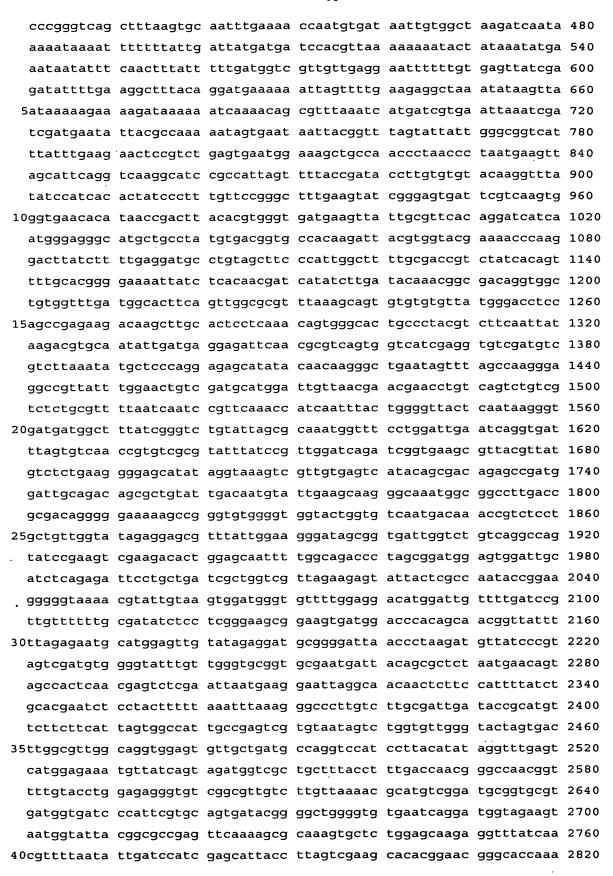
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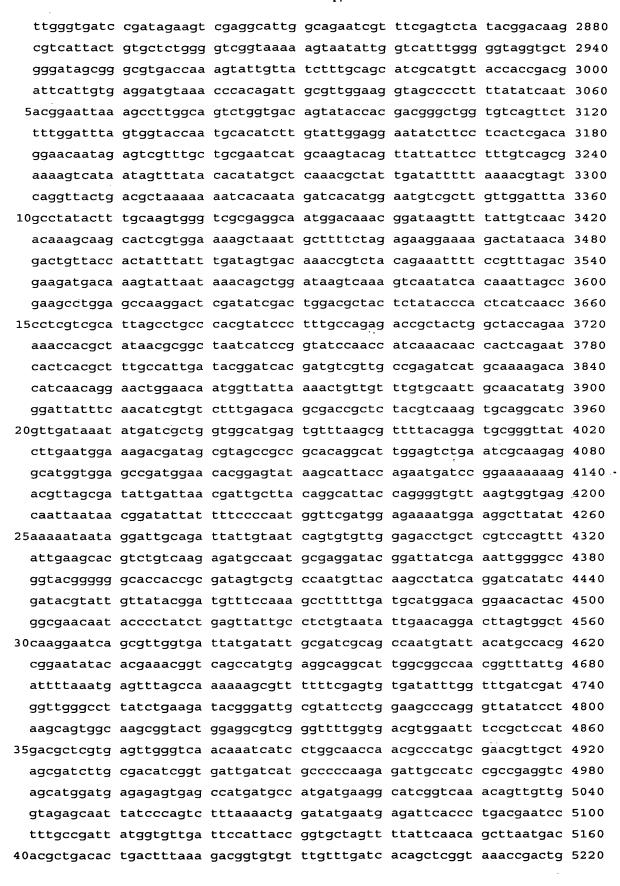
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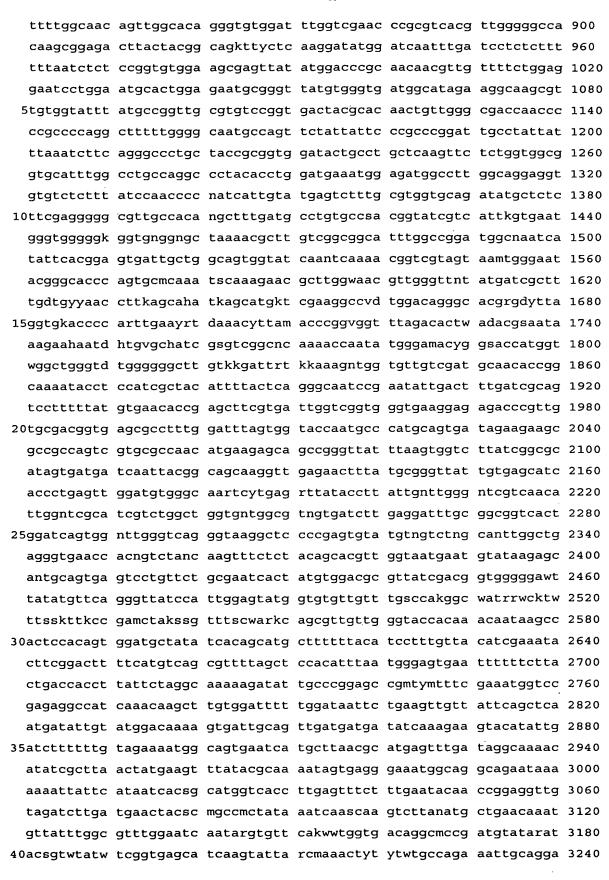
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  atettgegae ateggtgatt gateatgeee eeaagagatt geeateegee gaggteagea 360
  tggataaaga gtagccatga tgccatgatg aaggcatcgg tcaaacagtt gttggtagag 420
  caattatccc agtctttaaa actggatatg aatgagattc accctgacga atcctttgcc 480
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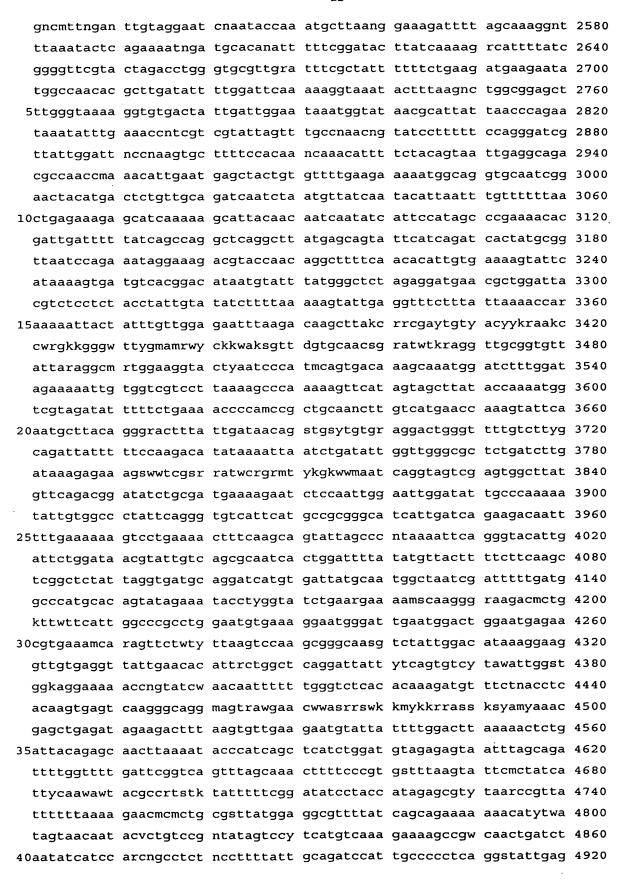
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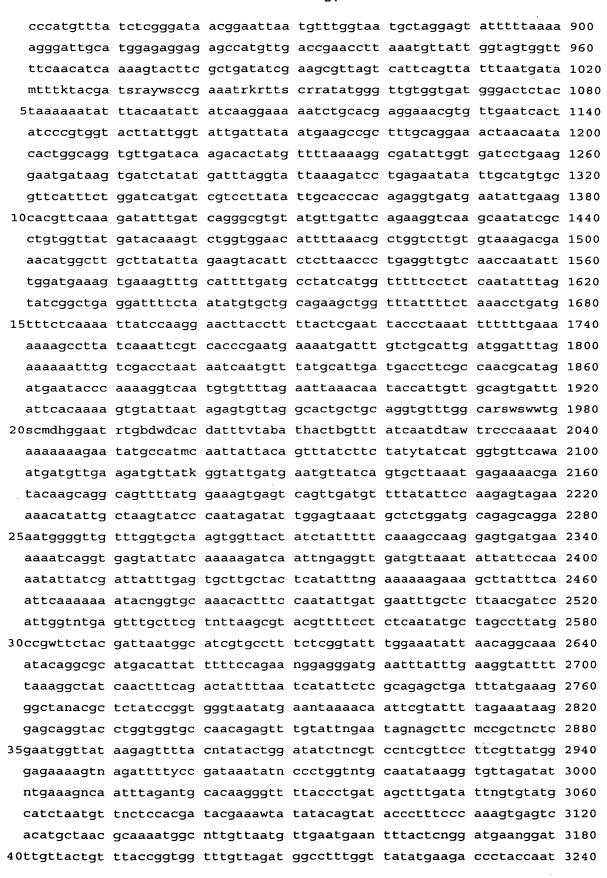
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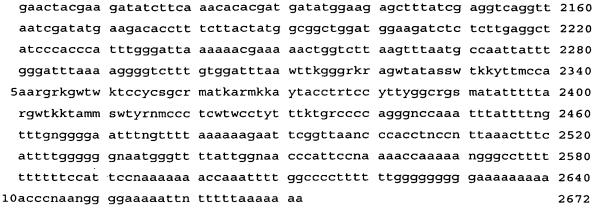
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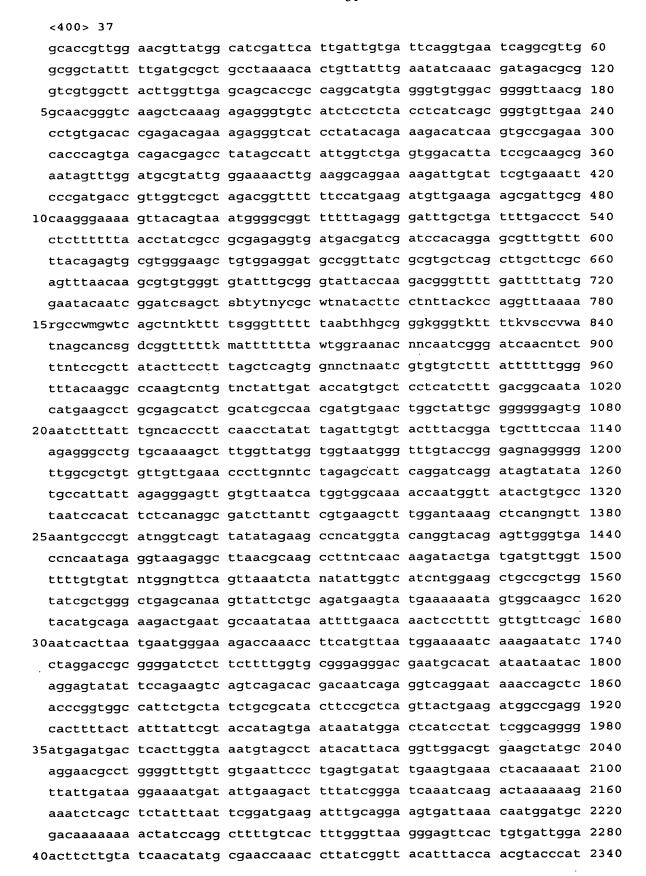
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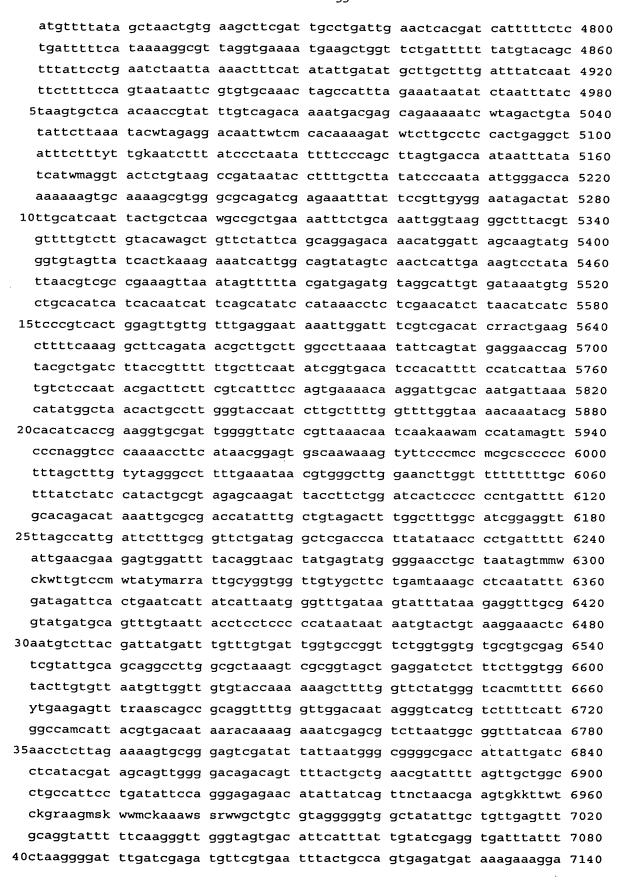
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Tyr Pro Ser His Tyr Pro Phe Val Pro Gly Phe Glu Val Ser Gly Val
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Ile Arg Gln Val Gly Glu His Ile Thr Asp Leu His Val Gly Asp Glu
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Glu Asp Ala Cys Ser Phe Pro Leu Ala Phe Ala Thr Val Tyr His Ser 180 185 190

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Phe Ala Arg Gly Lys Leu Ser His Asn Asp His Ile Leu Ile Gln Thr,
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40Leu Lys Gln Trp Ala Leu Pro Tyr Val Phe Asn Tyr Lys Thr Cys Asn

LOTETO BEGELZAED

Ile Asp Glu Glu Ile Gln Arg Val Ser Gly His Arg Gly Val Asp Val Val Leu Asn Met Leu Pro Gly Glu His Ile Gln Gln Gly Leu Asn Ser Leu Ala Lys Gly Gly Arg Tyr Leu Glu Leu Ser Met His Gly Leu Leu Thr Asn Glu Pro Val Ser Leu Ser Ser Leu Arg Phe Asn Gln Ser Val 15Gln Thr Ile Asn Leu Leu Gly Leu Leu Asn Lys Gly Asp Asp Gly Phe Ile Gly Ser Val Leu Ala Gln Met Val Ser Trp Ile Glu Ser Gly Asp Leu Val Ser Thr Val Ser Arg Ile Tyr Pro Leu Asp Gln Ile Gly Glu Ala Leu Arg Tyr Val Ser Glu Gly Glu His Ile Gly Lys Val Val Ser His Thr Ala Thr Glu Pro Met Asp Cys Arg Gln Arg Cys Ile Asp 30Asn Val Leu Lys Gln Gly Gln Met Ala Ala Leu Thr Ala Thr Gly Gly Lys Ser Arg Val Trp Gly Gly Thr Gly Val Asn Asp Lys Pro Ser Pro Ala Val Gly Ile Glu Glu Arg Leu Leu Glu Gly Ile Ala Val Ile Gly

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Thr Leu Ala Asp Gly Val Asp Cys Ile Ser Glu Ile Pro Ala Asp Arg

475

480

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Tyr Cys Lys Trp Met Gly Val Leu Glu Asp Met Asp Cys Phe Asp Pro 500 505 510

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675 680 685

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Asp Pro Ser Ser Ile Thr Leu Val Glu Ala His Gly Thr Gly Thr Lys
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Tyr Thr Asp Lys Arg His Tyr Cys Ala Leu Gly Ser Val Lys Ser Asn
770 775 780

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Ile Gly His Leu Gly Val Gly Ala Gly Ile Ala Gly Val Thr Lys Val
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Leu Leu Ser Leu Gln His Arg Met Leu Pro Pro Thr Ile His Cys Glu 85 815

Asp Val Asn Pro Gln Ile Ala Leu Glu Gly Ser Pro Phe Tyr Ile Asn 820 825 830

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965 970 975

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Tyr Leu Phe Asp Ser Asp Lys Pro Ser Thr Glu Ile Phe Arg Leu Asp 980 985 990

Glu Asp Asp Lys Val Leu Ile Asn Ser Trp Ile Ser Gln Ser Gln Tyr 20 995 1000 1005

His Lys Leu Ala Glu Ala Trp Ser Gln Gly Leu Asp Ile Asp Trp Thr
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His Ser Arg Phe Ala Ile Asp Thr Asp His Asp Val Val Ala Glu Ile 35 1075 1080 1085

Met Gln Lys Thr His Gln Glu Leu Glu Gln Trp Leu Leu Lys Leu 1090 1095 1100

40Leu Phe Val Gln Leu Gln His Met Gly Leu Phe Gln His Arg Val Phe

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Asp Arg Trp Trp His Glu Cys Leu Ser Val Leu Gln Asp Ala Gly Tyr

Leu Glu Trp Lys Asp Asp Ser Val Ala Ala Ala Gln Ala Leu Glu Ser

Glu Ser Gln Glu Ala Trp Trp Ser Arg Trp Asn Thr Glu Tyr Lys His

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Cys Leu Gln Ala Leu Pro Gly Val Leu Ser Gly Glu Gln Leu Ile Thr

Asp Ile Ile Phe Pro Asn Gly Ser Met Glu Lys Met Glu Gly Leu Tyr

Lys Asn Asn Arg Ile Ala Asp Tyr Cys Asn Gln Cys Val Gly Asp Leu

Leu Val Gln Phe Ile Glu Ala Arg Leu Ser Arg Asp Ala Asn Ala Arg

30Ile Arg Ile Ile Glu Ile Gly Ala Gly Thr Gly Gly Thr Thr Ala Ile

Val Leu Pro Met Leu Gln Ala Tyr Gln Asp His Ile Asp Thr Tyr Cys

Tyr Thr Asp Val Ser Lys Ala Phe Leu Met His Gly Gln Glu His Tyr

Gly Glu Gln Tyr Pro Tyr Leu Ser Tyr Cys Leu Cys Asn Ile Glu Gln



Asp Leu Val Ala Gln Gly Ile Ser Val Gly Asp Tyr Asp Ile Ala Ile 1330 1335 1340

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Ile Thr Gly Ala Ser Phe Ile Gln Gln Leu Asn Asp Thr Leu Thr Leu 1525 1530 1535

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Thr Ala Tyr Leu Leu Ser Asp Tyr Gly Asp Asp Ile Ala Gln Trp Leu

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Ser Val Pro Pro Ser Leu Ser Met Glu Ser Pro Val Gln Gln Glu Ser

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Glu Ala Phe Trp Gln Gln Leu Ala Gln Gly Val Asp Leu Val Glu Pro

Ala Ser Arg Trp Gly Pro Gln Ala Glu Thr Tyr Tyr Gly Ser Phe Leu · 1660

Lys Asp Met Asp Gln Phe Asp Pro Leu Phe Phe Asn Leu Ser Gly Val

Glu Ala Ser Tyr Met Asp Pro Gln Gln Arg Cys Phe Leu Glu Glu Ser

30Trp Asn Ala Leu Glu Asn Ala Gly Tyr Val Gly Asp Gly Ile Glu Gly

Lys Arg Cys Gly Ile Tyr Ala Gly Cys Val Ser Gly Asp Tyr Ala Gln

Leu Leu Gly Asp Gln Pro Pro Pro Gln Ala Phe Trp Gly Asn Ala Ser

Ser Ile Ile Pro Ala Arg Ile Ala Tyr Tyr Leu Asn Leu Gln Gly Pro



Ala Thr Ala Val Asp Thr Ala Cys Ser Ser Ser Leu Val Ala Val His

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10Trp Cys Arg Tyr

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